

Liver Elevator

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Item numbers

LP323-000	LP323-002	LP323-005
LP323-010	LP323-015	LP323-020
LP323-025	LP323-030	LP323-035
LP323-040		

Intended use

- It is the decision of the user whether this medical product is appropriate or not. We take no responsibility for consequences of incorrect use and preparation.
- The Liver Elevator is for manipulating organs during laparoscopic surgeries, especially for colecystectomy. Its flat form and rounded edges allow the surgeon to lift organs (e.g. liver) or push them aside without traumatization.

Function test

- Following delivery and before each use new instruments must undergo a thorough visual examination and must be tested for functionality. If the instruments exhibit any external faults (scratches, breakages, cracks, notches, damaged insulation, bent parts or stiffness) or if they do not function in the way described, please inform us as manufacturers or our sales partners immediately.

Warnings and precautions

Do not use damaged instruments.

First use of new instruments

- New instruments must be taken out of their polyethylene bags and must be stored until first preparation in clean, dry (max. atmospheric humidity of 75% RH) and aired protective containers at room ambient temperature.
- Liver Elevators are delivered non-sterile. Before first use the instruments must be cleaned and sterilized. They are dismantable and therefore must be cleaned in dismantled state.

Dismantling instructions

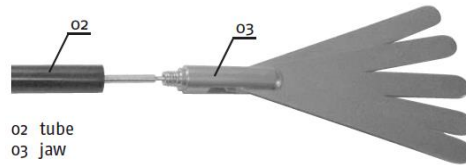


- 01 handle
- 04 sleeve nut
- 05 ball
- 06 ball collet

- Unscrew sleeve nut (04) from two-part handle (01).
- Hold handle (01).
- Pull out tube of the jaw in straight line (same axis as handle) and without lateral buckling until the ball (05) in the ball collet (06) appears.
- Remove the ball (05) from the ball collet (06) by pushing it up.

Warnings and precautions

- Possible damaging of the ball!
- By pushing the ball laterally out of the central axis or by buckling you may damage the neck of the inner part. In extreme case the ball may break off. Therefore, avoid buckling movements as long as the ball is in the ball collet and the sleeve nut is not fastened!



- 02 tube
- 03 jaw

- Hold tube (02) and unscrew jaw (03) from tube (02).
- Pull out jaw (03) (same axis as tube) of tube (02) without lateral buckling.

Variant Live Elevator, with articulation

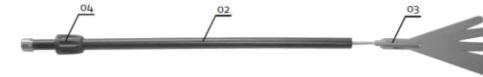


- The jaw of this variant must be removed as already described from the ball collet of the two-piece handle. The jaw and its mechanism are not dismantable.

Warnings and precautions

- Possible damaging of the inner part!
By pushing the ball laterally out of the central axis or by buckling you may damage the inner part.
- Therefore, avoid buckling movements as long as the inner part has not entirely been pulled out of the tube (02)!

Assembly instructions



- 02 tube
- 03 jaw
- 04 sleeve nut

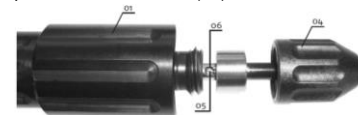
- If necessary, apply sleeve nut (04) on tube (02) as described in the illustration.
- Hold tube (02) in line with jaw (03) (same axis as tube) and pull it into the tube (02) without buckling.
- Screw jaw (03) onto tube (02) and tighten it by hand.

Variant Liver Elevator, with articulation

- The assembly instructions of this variant are inapplicable. The jaw and its mechanism are **not** dismantable.

Warnings and precautions

- Possible damaging of the inner part!
- Lateral buckling movements out of the central axis will damage the inner part. Therefore, avoid buckling movements as long as the inner part has not entirely been pulled out of the tube (02)!



- 01 tube
- 04 sleeve nut
- 05 ball
- 06 ball collet

- Hold tube in straight line (same axis as handle) and insert the ball (05) from the top into the ball collet (06).

- Insert the tube in straight line (same axis as handle) without lateral buckling movements into the two-part handle until it stops at the end of the handle (01).
- Screw-on sleeve nut (04) onto handle (01) and tighten it by hand.

Warnings and precautions

- Possible damaging of the ball!
Lateral buckling out of the central axis will damage the neck of the inner part. In extreme case the ball may break off.

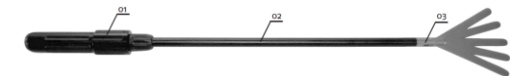
Therefore, avoid buckling movements as long as the ball is in the ball collet and the sleeve nut is not fastened!

Maintenance/Safety advices

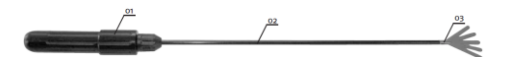
Warnings and precautions

- Liver elevators may only be used by qualified and specially trained surgeons.
- Handle the instrument with great care. Avoid large manual force movements.
- Carefully insert the instrument into the trocar sleeve to avoid damaging the working part.

Variants



- 01 handle
- 02 tube
- 03 jaw
- Liver Elevator: Diameter Ø 10 mm, working length 390 mm



- 01 handle
- 02 tube
- 03 jaw
- Liver Elevator: Diameter Ø 5 mm, working length 355 mm



- 01 handle
- 02 knurled head screw
- 03 jaw

- Liver Elevator: with articulation, Diameter Ø 10 mm, working length 390 mm

Liver Elevator into position

- Hold the outer part of the two-piece handle (01).
- Screw in inner part of the two-piece handles (01) until jaw (03) is closed completely.
- The jaw of the variant “with articulation” must be put into position by turning the knurled head screw in 0° position.
- Insert the Liver Elevator carefully into the trocar sleeve until it attains the desired position.
- Carefully turn the outer part of the two-piece handle (01) until the Liver Elevator is in the desired direction.
- Hold outer part of the two-piece handle (01).
- Slowly turn the inner part of the two-piece handle (01) until the jaw (03) is open sufficiently.

Remove Liver Elevator

- Hold outer part of the two-piece handle (01).
- Slowly turn the inner part of the two-piece handle (01) until the jaw (03) is completely closed.
- The jaw of the variant “with articulation” must be put into position by turning the knurled head screw in 0° position.
- Carefully take out the Liver Elevator of the trocar sleeve.

Preparation

	Please observe our instructions for preparation A0462 for reusable endoscopy instruments (thermo resistant). In case you do not have them please ask for them.
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Product specific preparation instructions:

- Restrictions of preparation:
- There are no limitations or restrictions for preparation regarding the number of preparation cycles.
- Preparation for decontamination:

- Dismantle the instrument for the different cleaning and disinfection steps (see dismantling instructions).
- Cleaning: manual/automatic
- Jaws and lockings must be cleaned thoroughly and with attention.
- Maintenance, control and inspection:
- Before each sterilization the instrument must be assembled (see assembly instructions) and must be checked for
- functionality, wear and tear and damages.

Repairs

- Even if you use the instruments in the way described in these instructions, they are subject to wear, depending of the intensity of use. Wear is a technical consequence and inevitable.
- Do not perform repairs yourself. Service and repairs must be performed by the manufacturer or authorized personnel only.
- Instruments sent for repair must be cleaned, disinfected and sterilize beforehand.

Symbols and explanations

	Follow the instructions for use
REF	Order number
	Non-sterile
	Manufacturer
	Potential danger for persons or material assets
LOT	Lot-Number
CE	CE-marking



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